

3.3/3.4 HW 19

p142-143 15-23 odd 28, 31, 33, 36

p148-149 19, 22, 39, 41, 43, 44

19.  $\overleftrightarrow{PQ}$   $m = \frac{1-2}{9-3} = \frac{3}{12} = \frac{1}{4}$  ~~perpendicular~~

$\overleftrightarrow{UV}$   $m = \frac{6-2}{3-9} = \frac{4}{-6} = -\frac{2}{3}$  perpendicular

21.  $\overleftrightarrow{PQ}$   $m = \frac{7-1}{-10-2} = \frac{6}{-12} = -\frac{1}{2}$

$\overleftrightarrow{UV}$   $m = \frac{1-6}{6-4} = \frac{-5}{2} = -\frac{5}{2}$  Neither

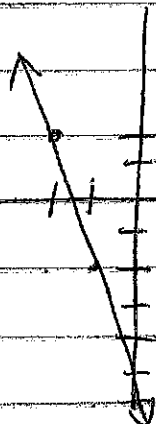
23.  $\overleftrightarrow{PQ}$   $m = \frac{8-1}{9-1} = \frac{7}{8}$

$\overleftrightarrow{UV}$   $m = \frac{8-1}{2-2} = \frac{7}{0}$  parallel

28.  $\overleftrightarrow{EF}$   $m = 0$

31. undefined

33.



p 148

19.  $y = -x - 3$

22.  $m = -5$  (4, 7)

$y - 7 = -5(x - 4)$

39.  $(-5, -3)$  (10, -6)

$m = \frac{-6 - (-3)}{10 - (-5)} = \frac{-3}{15} = -\frac{1}{5}$

~~$y = -\frac{1}{5}x + b$~~

~~$-6 = -\frac{1}{5}(10) + b$~~

$y = -\frac{1}{5}x + b$

$-6 = -\frac{1}{5}(10) + b$

$-4 = b$

~~$y = -\frac{1}{5}x + b$~~

$y = -\frac{1}{5}x - 4$

41.  $(-6, 8)$   $(-6, -4)$

$m = \frac{8 - (-4)}{-6 - (-6)} = \text{undefined}$

$x = -6$

43.  $(7, -2)$  parallel to

$2x - 5y = 8$

$-5y = -2x + 8$

$y = \frac{2}{5}x - \frac{8}{5}$

$y = \frac{2}{5}x + b$

$-2 = \frac{2}{5}(7) + b$

$-\frac{10}{5} = \frac{14}{5} + b$

$-\frac{24}{5} = b$

$y = \frac{2}{5}x - \frac{24}{5}$